Table 1 of US'359 specifies, for Examples 1 – 16, at the most up to 0.030 wt% Mn and up to 0.035 wt% Mg, but with very low additions of Cu and Zn. The lowermost example, the 6063 alloy in Table 1, refers to 0.48 wt% Mg, but this alloy has 0.03 wt% Mn and no additions of Zn or Cu, contrary to the presently claimed invention which requires 0.15 wt% Zn and 0.1 wt% Cu.

Furthermore, the Examiner has not responded to Applicants' previous arguments concerning the criticality of the upper limit of the amount of Mn as established by the data set forth in the specification. Although the Examiner acknowledges this argument in the second paragraph on page 3 of the Office Action, there is no response to the argument in the next paragraph which bridges pages 3-4 of the Office Action. Although those arguments include arguments with respect to the rejection based on the JP '857 reference (which has now been withdrawn), they are equally applicable to the current rejection based on a combination of the US '359 and US '090 references.

Thus, in previously responding to Applicants' arguments, the Examiner stated that if Applicants would like to argue unexpected results from the selection of a narrow alloy composition, evidence in a Rule 132 Declaration in comparison with the prior art is required, but as Applicants have noted, this evidence is already of record in the present specification, and the Examiner should consider all rebuttal arguments and evidence presented by Applicants, it being "error not to consider evidence presented in the specification" (MPEP 2145).

In this regard, referring to the first full paragraph on page 2 of the specification, the Mn results in formation of AlMnFeSi dispersoid particles formed during homogenization, which act as nucleation sites for Mg_2Si particles during cooling after homogenization. With a larger number of dispersoid particles, a higher number of Mg_2Si particles are formed, resulting in a reduced size of each particle. Fig. 1 of the application shows the dispersoid density with constant Mg and Si and Fe contents versus the Mn content. As shown in Fig 1, the higher the Mn content in the alloy, the greater the dispersoid density. This leads to smaller particle sizes of the Mg_2Si particles, inhibiting tearing of the profile and allowing for increased extrusion speeds (e.g. see the disclosure below Table 1 on page 4 of the specification). However, if the Mn content is too high, it will have an undesirable increase in quench sensitivity, as shown by Figs. 7 and 8 and the supporting data in the specification, reference in this regard being made to the disclosure beginning at page 6, line 34 and continuing over to page 8, line 12 of the specification.

Thus, Applicants have in fact demonstrated the criticality of the Mn content range of 0.03-0.06 wt% in accordance with the presently claimed invention, thus supporting its patentability (MPEP 2144.05 II).

As Applicants have previously noted, US '359 corresponds to WO 98/42884 which is discussed in the present application on pages 1, 2, 5 and 8. The differences between the alloy as defined in claim 5 of the present application and US '359 is the content of Mg, which as noted above is 0.35 - 0.5 wt% according to the present invention and 0.2 - 0.34 wt% according to US '359, and in addition, the present invention specifies a more narrow range of Mn (0.03 - 0.06 wt%) compared to up to 0.15 wt% in US '359. If more than 0.06 wt% Mn is added to the alloys there is a negative effect on the quench sensitivity of the extruded profile, and thus the Mn level is between 0.03 wt% and 0.06 wt% for these alloys. This is not disclosed or suggested in US '359.

For these reasons, Applicants take the position that the presently claimed invention is clearly patentable over the applied references, and that the rejection of the claims as being obvious over the references should be withdrawn, placing the application in condition for allowance. Such allowance is solicited.

Respectfully submitted,

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